

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	186	564/168	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/06/02 18:49
L2	434084	fluorescence dye	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/06/02 18:49
L3	299440	beads	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/06/02 18:49
L4	58999	L2 and L3	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/06/02 18:49
L5	1	L1 and L4	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/06/02 18:50
L6	435092	azomethine dye	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/06/02 18:50
L7	59061	L6 and L3	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/06/02 18:50
L8	58815	L7 and L2	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/06/02 18:50
L9	3907758	low fluorescence	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/06/02 18:50
L10	53705	L8 and L9	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/06/02 18:51
L11	47342	microsphere	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/06/02 18:51
L12	8259	L10 and L11	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/06/02 18:51

EAST Search History

L13	234698	capsule	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/06/02 18:51
L14	3011	L12 and L13	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/06/02 18:51
L15	1148149	DNA analysis	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/06/02 18:51
L16	2836	L14 and L15	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/06/02 18:52
L17	1967351	optical beads	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/06/02 18:52
L18	2836	L16 and L17	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/06/02 18:52
L19	1140593	coated	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/06/02 18:52
L20	2480	L18 and L19	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/06/02 18:52
L21	3014794	visible light	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/06/02 18:54
L22	2349	L20 and L21	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/06/02 18:54
L23	2349	L22 and L17	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/06/02 18:54
L24	2349	L23 and L15	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/06/02 18:55
L25	2349	L24 and L6	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/06/02 18:55

EAST Search History

L26	2349	L25 and L13	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/06/02 18:55
L27	47342	microsphere	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/06/02 18:56
L28	433076	dye	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/06/02 18:56
L29	16006	L27 and L28	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/06/02 18:56
L30	7837	azomethine	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/06/02 18:56
L31	37	L29 and L30	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/06/02 18:57
S1	5943	microsphere.clm.	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/06/02 18:48
S2	24497473	capsule containing a dye.clm.	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2006/10/24 15:48
S3	5943	S1 and S2	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2006/10/24 15:49
S4	46372	dye.clm.	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2006/10/24 15:49
S5	432	S3 and S4	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2006/10/24 15:50
S6	5943	microsphere.clm.	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2006/10/24 15:50
S7	432	S5 and S6	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2006/10/24 16:05

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S8	5943	microsphere.clm.	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2006/10/24 16:05
S9	179997	array.clm.	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2006/10/24 16:06
S10	300	S8 and S9	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2006/10/24 16:06
S11	1121	514/617	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2006/10/30 09:25
S12	2613	514/357	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2006/10/30 09:25
S13	125	S11 and S12	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2006/10/30 09:28
S14	518	546/336	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2006/10/30 09:29
S15	4877	435/287.2	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2006/10/30 09:28
S16	0	S14 and S15	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2006/10/30 09:28
S17	190	Microsphere with a dye	US-PGPUB; USPAT; EPO; DERWENT	WITH	ON	2006/10/30 09:29
S18	999	"5412087"	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2006/10/30 10:36
S19	305	"5489678"	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2006/10/30 10:37
S20	190	"5981180"	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2006/10/30 10:43

EAST Search History

S21	190	"6023540"	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2006/10/30 10:45
S22	45	"6079283"	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2006/10/30 10:46
S23	63	"6083762"	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2006/10/30 10:47
S24	34	"6094966"	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2006/10/30 10:47

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|---------------------|------------------|
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ENTRY | TOTAL
SESSION |
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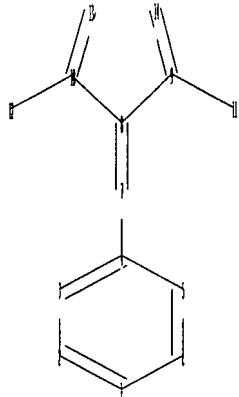
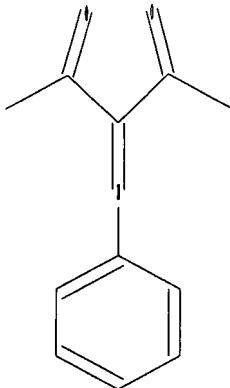
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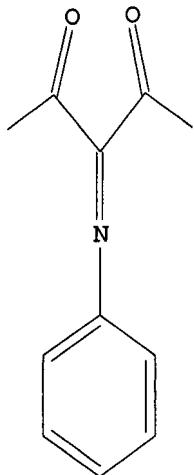
=>
Uploading C:\Program Files\Stnexp\Queries\diketone amine.str



chain nodes :
7 8 9 10 11 12 13 14
ring nodes :
1 2 3 4 5 6
chain bonds :
4-7 7-8 8-9 8-10 9-11 9-14 10-12 10-13
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6
exact/norm bonds :
4-7 7-8 9-14 10-13
exact bonds :
8-9 8-10 9-11 10-12
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS
11:CLASS 12:CLASS 13:CLASS 14:CLASS

=> D L1
L1 HAS NO ANSWERS
L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> S L1 full
FULL SEARCH INITIATED 16:46:35 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 2076 TO ITERATE
100.0% PROCESSED 2076 ITERATIONS 11 ANSWERS
SEARCH TIME: 00.00.01

L2 11 SEA SSS FUL L1

| => file caplus | SINCE FILE | TOTAL |
|----------------------|------------|---------|
| COST IN U.S. DOLLARS | ENTRY | SESSION |
| FULL ESTIMATED COST | 166.94 | 167.15 |

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FILE COVERS 1907 - 21 Aug 2006 VOL 145 ISS 9
FILE LAST UPDATED: 20 Aug 2006 (20060820/ED)

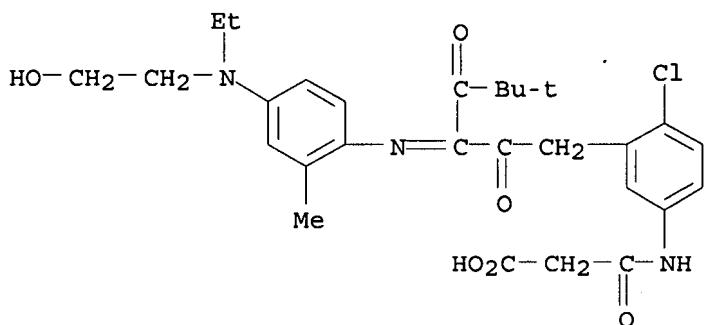
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=> S L2
L3 12 L2

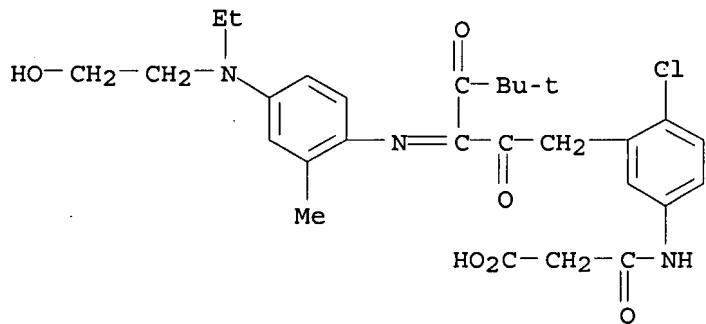
=> D L2 1-12
YOU HAVE REQUESTED DATA FROM FILE 'REGISTRY' - CONTINUE? (Y)/N:Y

L2 ANSWER 1 OF 11 REGISTRY COPYRIGHT 2006 ACS on STN
RN 791583-99-8 REGISTRY
ED Entered STN: 02 Dec 2004
CN Propanoic acid, 3-[[4-chloro-3-[[3-[[4-[ethyl(2-hydroxyethyl)amino]-2-methylphenyl]imino]-5,5-dimethyl-2,4-dioxohexyl]phenyl]amino]-3-oxo- (9CI)
(CA INDEX NAME)
FS 3D CONCORD
MF C28 H34 Cl N3 O6
CI COM
SR CA



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

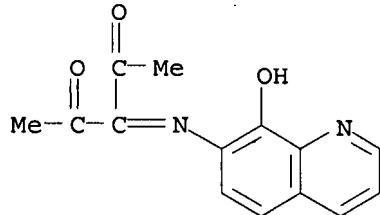
L2 ANSWER 2 OF 11 REGISTRY COPYRIGHT 2006 ACS on STN
RN 604783-29-1 REGISTRY
ED Entered STN: 15 Oct 2003
CN Propanoic acid, 3-[[4-chloro-3-[[3-[[4-[ethyl(2-hydroxyethyl)amino]-2-methylphenyl]imino]-5,5-dimethyl-2,4-dioxohexyl]phenyl]amino]-3-oxo-, monopotassium salt (9CI) (CA INDEX NAME)
MF C28 H34 Cl N3 O6 . K
SR CA
LC STN Files: CA, CAPLUS
CRN (791583-99-8)



● K

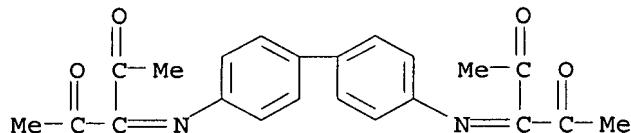
1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 3 OF 11 REGISTRY COPYRIGHT 2006 ACS on STN
 RN 344253-44-7 REGISTRY
 ED Entered STN: 01 Jul 2001
 CN 2,4-Pentanedione, 3-[(8-hydroxy-7-quinolinyl)imino]- (9CI) (CA INDEX NAME)
 FS 3D CONCORD
 MF C14 H12 N2 O3
 SR Reaction Database
 LC STN Files: CASREACT



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

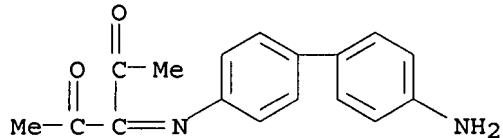
L2 ANSWER 4 OF 11 REGISTRY COPYRIGHT 2006 ACS on STN
 RN 223418-51-7 REGISTRY
 ED Entered STN: 21 May 1999
 CN 2,4-Pentanedione, 3,3'-([1,1'-biphenyl]-4,4'-diyldinitrilo)bis- (9CI) (CA INDEX NAME)
 FS 3D CONCORD
 MF C22 H20 N2 O4
 SR CA
 LC STN Files: CA, CAPLUS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

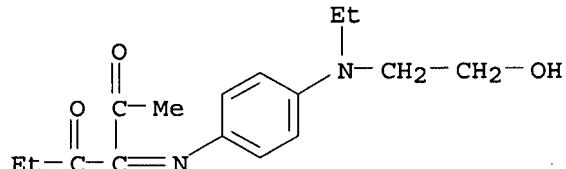
L2 ANSWER 5 OF 11 REGISTRY COPYRIGHT 2006 ACS on STN
RN 223418-50-6 REGISTRY
ED Entered STN: 21 May 1999
CN 2,4-Pentanedione, 3-[(4'-amino[1,1'-biphenyl]-4-yl)imino]- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C17 H16 N2 O2
SR CA
LC STN Files: CA, CAPLUS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

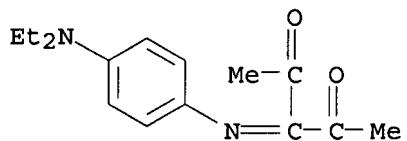
L2 ANSWER 6 OF 11 REGISTRY COPYRIGHT 2006 ACS on STN
RN 138311-22-5 REGISTRY
ED Entered STN: 10 Jan 1992
CN 2,4-Hexanedione, 3-[[4-[ethyl(2-hydroxyethyl)amino]phenyl]imino]- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C16 H22 N2 O3
SR CA
LC STN Files: CA, CAPLUS



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1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

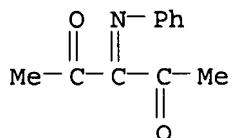
L2 ANSWER 7 OF 11 REGISTRY COPYRIGHT 2006 ACS on STN
RN 124009-34-3 REGISTRY
ED Entered STN: 01 Dec 1989
CN 2,4-Pentanedione, 3-[[4-(diethylamino)phenyl]imino]- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C15 H20 N2 O2
SR CA
LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT
(*File contains numerically searchable property data)



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2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

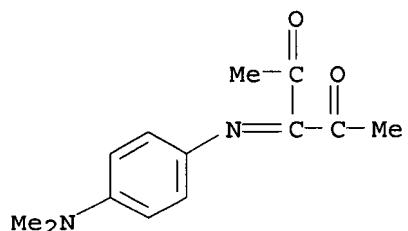
L2 ANSWER 8 OF 11 REGISTRY COPYRIGHT 2006 ACS on STN
RN 83325-65-9 REGISTRY
ED Entered STN: 16 Nov 1984
CN 2,4-Pentanedione, 3-(phenylimino)- (7CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN 3-(Phenylimino)-2,4-pentanedione
FS 3D CONCORD
MF C11 H11 N O2
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT
(*File contains numerically searchable property data)



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4 REFERENCES IN FILE CA (1907 TO DATE)
4 REFERENCES IN FILE CAPLUS (1907 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

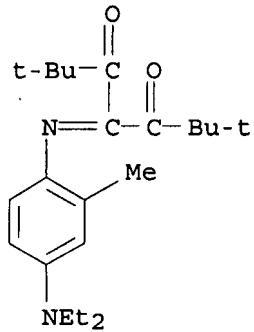
L2 ANSWER 9 OF 11 REGISTRY COPYRIGHT 2006 ACS on STN
RN 69947-30-4 REGISTRY
ED Entered STN: 16 Nov 1984
CN 2,4-Pentanedione, 3-[[4-(dimethylamino)phenyl]imino]- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C13 H16 N2 O2
LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT
(*File contains numerically searchable property data)



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4 REFERENCES IN FILE CA (1907 TO DATE)
4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

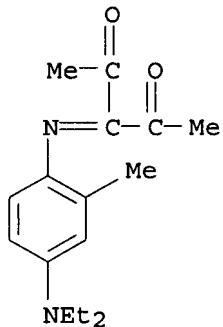
L2 ANSWER 10 OF 11 REGISTRY COPYRIGHT 2006 ACS on STN
RN 55901-06-9 REGISTRY
ED Entered STN: 16 Nov 1984
CN 3,5-Heptanedione, 4-[[4-(diethylamino)-2-methylphenyl]imino]-2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)
MF C22 H34 N2 O2
LC STN Files: BEILSTEIN*, CA, CAPLUS
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1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 11 OF 11 REGISTRY COPYRIGHT 2006 ACS on STN
RN 55901-05-8 REGISTRY
ED Entered STN: 16 Nov 1984
CN 2,4-Pentanedione, 3-[[4-(diethylamino)-2-methylphenyl]imino]- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C16 H22 N2 O2
LC STN Files: BEILSTEIN*, CA, CAPLUS
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| FULL ESTIMATED COST | | 0.46 | 189.41 |

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 FILE LAST UPDATED: 20 Aug 2006 (20060820/ED)

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 L4 12 L2

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| IND ----- | Indexing data |
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| SAM ----- | CC, SX, TI, ST, IT |
| SCAN ----- | CC, SX, TI, ST, IT (random display, no answer numbers;
SCAN must be entered on the same line as the DISPLAY,
e.g., D SCAN or DISPLAY SCAN) |
| STD ----- | BIB, CLASS |
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IALL ----- ALL, indented with text labels
IBIB ----- BIB, indented with text labels
IMAX ----- MAX, indented with text labels
ISTD ----- STD, indented with text labels

OBIB ----- AN, plus Bibliographic Data (original)
OIBIB ----- OBIB, indented with text labels

SBIB ----- BIB, no citations
SIBIB ----- IBIB, no citations

HIT ----- Fields containing hit terms
HITIND ----- IC, ICA, ICI, NCL, CC and index field (ST and IT) containing hit terms
HITRN ----- HIT RN and its text modification
HITSTR ----- HIT RN, its text modification, its CA index name, and its structure diagram
HITSEQ ----- HIT RN, its text modification, its CA index name, its structure diagram, plus NTE and SEQ fields
FHITSTR ----- First HIT RN, its text modification, its CA index name, and its structure diagram
FHITSEQ ----- First HIT RN, its text modification, its CA index name, its structure diagram, plus NTE and SEQ fields
KWIC ----- Hit term plus 20 words on either side
OCC ----- Number of occurrence of hit term and field in which it occurs

To display a particular field or fields, enter the display field codes. For a list of the display field codes, enter HELP DFIELDS at an arrow prompt (=>). Examples of formats include: TI; TI,AU; BIB,ST; TI,IND; TI,SO. You may specify the format fields in any order and the information will be displayed in the same order as the format specification.

All of the formats (except for SAM, SCAN, HIT, HITIND, HITRN, HITSTR, FHITSTR, HITSEQ, FHITSEQ, KWIC, and OCC) may be used with DISPLAY ACC to view a specified Accession Number.

ENTER DISPLAY FORMAT (BIB):bibhis
'BIBHIS' IS NOT A VALID FORMAT FOR FILE 'CAPLUS'

The following are valid formats:

ABS ----- GI and AB
ALL ----- BIB, AB, IND, RE
APPS ----- AI, PRAI
BIB ----- AN, plus Bibliographic Data and PI table (default)
CAN ----- List of CA abstract numbers without answer numbers
CBIB ----- AN, plus Compressed Bibliographic Data
CLASS ----- IPC, NCL, ECLA, FTERM
DALL ----- ALL, delimited (end of each field identified)
DMAX ----- MAX, delimited for post-processing
FAM ----- AN, PI and PRAI in table, plus Patent Family data
FBIB ----- AN, BIB, plus Patent FAM
IND ----- Indexing data
IPC ----- International Patent Classifications
MAX ----- ALL, plus Patent FAM, RE
PAT----- PI, SO
SAM ----- CC, SX, TI, ST, IT
SCAN ----- CC, SX, TI, ST, IT (random display, no answer numbers;
SCAN must be entered on the same line as the DISPLAY,
e.g., D SCAN or DISPLAY SCAN)
STD ----- BIB, CLASS

IABS ----- ABS, indented with text labels
IALL ----- ALL, indented with text labels
IBIB ----- BIB, indented with text labels

FILE 'REGISTRY' ENTERED AT 16:59:39 ON 21 AUG 2006
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STRUCTURE FILE UPDATES: 20 AUG 2006 HIGHEST RN 902860-89-3
DICTIONARY FILE UPDATES: 20 AUG 2006 HIGHEST RN 902860-89-3

New CAS Information Use Policies, enter HELP USAGETERMS for details.

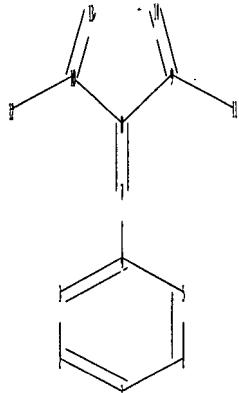
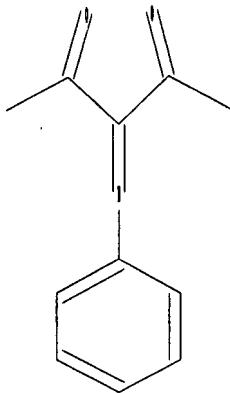
TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=>
Uploading C:\Program Files\Stnexp\Queries\diketone amine.str

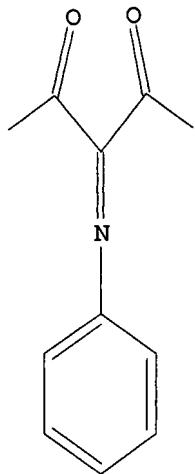


chain nodes :
7 8 9 10 11 12 13 14
ring nodes :
1 2 3 4 5 6
chain bonds :
4-7 7-8 8-9 8-10 9-11 9-14 10-12 10-13
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6
exact/norm bonds :
4-7 7-8 9-14 10-13
exact bonds :
8-9 8-10 9-11 10-12
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS
11:CLASS 12:CLASS 13:CLASS 14:CLASS

L1 STRUCTURE UPLOADED

=> D L1
L1 HAS NO ANSWERS
L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> S L1
SAMPLE SEARCH INITIATED 17:00:09 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 103 TO ITERATE

100.0% PROCESSED 103 ITERATIONS 1 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 1452 TO 2668
PROJECTED ANSWERS: 1 TO 80

L2 1 SEA SSS SAM L1

=> file reg
COST IN U.S. DOLLARS SINCE FILE TOTAL
FULL ESTIMATED COST ENTRY SESSION
0.44 0.65

FILE 'REGISTRY' ENTERED AT 17:00:17 ON 21 AUG 2006
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DICTIONARY FILE UPDATES: 20 AUG 2006 HIGHEST RN 902860-89-3

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

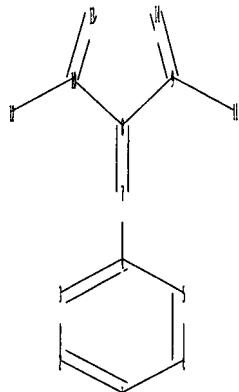
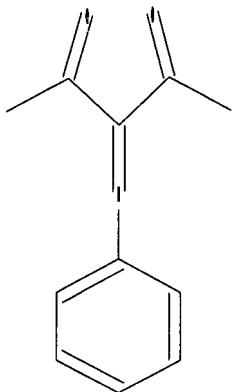
Please note that search-term pricing does apply when

conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=>
Uploading C:\Program Files\Stnexp\Queries\diketone amine.str



chain nodes :
7 8 9 10 11 12 13 14

ring nodes :

1 2 3 4 5 6

chain bonds :

4-7 7-8 8-9 8-10 9-11 9-14 10-12 10-13

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6

exact/norm bonds :

4-7 7-8 9-14 10-13

exact bonds :

8-9 8-10 9-11 10-12

normalized bonds :

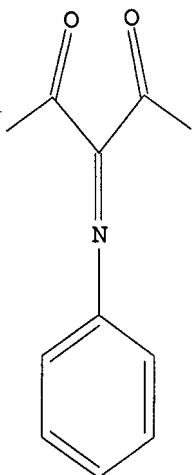
1-2 1-6 2-3 3-4 4-5 5-6

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS
11:CLASS 12:CLASS 13:CLASS 14:CLASS

L3 STRUCTURE UPLOADED

=> D L3
L3 HAS NO ANSWERS
L3 STR



Structure attributes must be viewed using STN Express query preparation.

=> s L3

SAMPLE SEARCH INITIATED 17:00:43 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 103 TO ITERATE

100.0% PROCESSED 103 ITERATIONS 1 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 1452 TO 2668
PROJECTED ANSWERS: 1 TO 80

L4 1 SEA SSS SAM L3

=> file caplus
COST IN U.S. DOLLARS SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST 0.44 1.09

FILE 'CAPLUS' ENTERED AT 17:00:51 ON 21 AUG 2006
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FILE COVERS 1907 - 21 Aug 2006 VOL 145 ISS 9
FILE LAST UPDATED: 20 Aug 2006 (20060820/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.
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=> s l4
L5 1 L4

=> d 15 bib abs hitstr

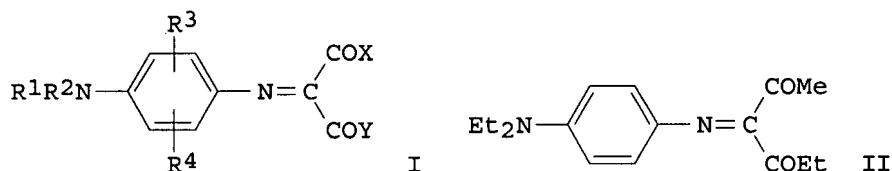
L5 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1992:49016 CAPLUS
DN 116:49016
TI Dyes for sublimation-transfer printing and dye sheet
IN Karasawa, Akio; Koshida, Hitoshi; Aida, Isamu; Takuma, Hirosuke
PA Mitsui Toatsu Chemicals, Inc., Japan
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF

DT Patent
LA Japanese

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|-------|----------|-----------------|----------|
| ----- | ----- | ----- | ----- | ----- |
| PI JP 03197090 | A2 | 19910828 | JP 1989-334837 | 19891226 |
| PRAI JP 1989-334837 | | 19891226 | | |

GI



AB The title dyes I [R1-2 = alkyl, alkenyl, aryl; R1-2 may be mutually bonded; R3-4 = H, halo, OH, cyano, alkyl, alkoxy; X = (cyclo)alkyl, aryl; Y = (cyclo)alkyl, aryl, OZ; Z = (cyclo)alkyl, alkenyl, aryl; X and Y may be mutually bonded]. I are yellow dyes and are suitable for sublimation-transfer printing of full-color images. Thus, a dispersion containing 3 parts of a dye II synthesized from N,N-diethylphenylenediamine and Et acetoacetate by oxidation and 4.5 parts butyral resin was applied on PET film to form a 1 g/m² layer. This film was used for sublimation-transfer printing with a receptor sheet coated with polyester, EVA and silicones and gave image with d. 2.7, which was highly colorfast and resistant to abrasion.

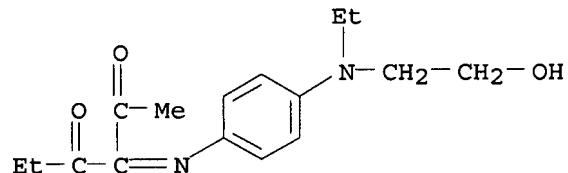
IT 138311-22-5

RL: USES (Uses)

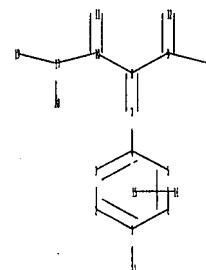
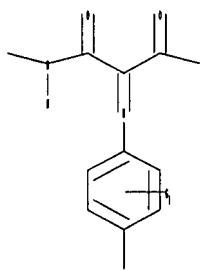
(sublimable dye, yellow, for sublimation-transfer printing)

RN 138311-22-5 CAPLUS

CN 2,4-Hexanedione, 3-[[4-[ethyl(2-hydroxyethyl)amino]phenyl]imino]- (9CI)
(CA INDEX NAME)



=>



chain nodes :

7 8 9 10 11 12 15 16 17 18 19 20 21

ring nodes :

1 2 3 4 5 6

chain bonds :

1-21 4-7 7-8 8-9 8-10 9-12 9-18 10-11 10-17 15-16 17-19 17-20

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6

exact/norm bonds :

4-7 7-8 9-12 10-11 10-17 15-16 17-19

exact bonds :

1-21 8-9 8-10 9-18 17-20

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6

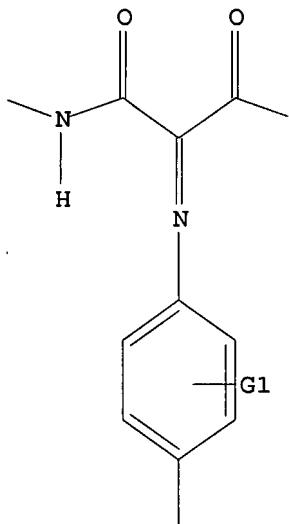
G1:OH,MeO,EtO,n-PrO,i-PrO,n-BuO,i-BuO,s-BuO,t-BuO,NH2,Cb,Cy,Hy,Ak

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS
11:CLASS 12:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS 19:CLASS 20:CLASS
21:CLASS

L1 STRUCTURE UPLOADED

=> D L1
L1 HAS NO ANSWERS
L1 STR



G1 OH,MeO,EtO,n-PrO,i-PrO,n-BuO,i-BuO,s-BuO,t-BuO,NH2,Cb,Cy,Hy,Ak

Structure attributes must be viewed using STN Express query preparation.

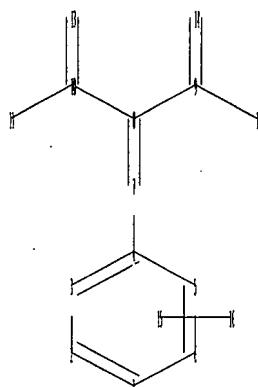
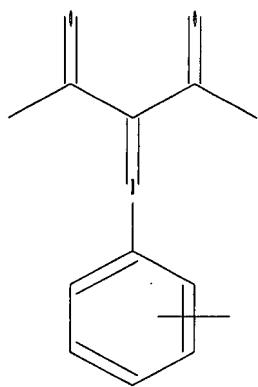
=> S L1 full
FULL SEARCH INITIATED 08:20:43 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 326 TO ITERATE
100.0% PROCESSED 326 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

L2 0 SEA SSS FUL L1

=> file caplus
COST IN U.S. DOLLARS SINCE FILE TOTAL
FULL ESTIMATED COST ENTRY SESSION
166.94 167.15

FILE 'CAPLUS' ENTERED AT 08:20:49 ON 24 OCT 2006
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chain nodes :

7 8 9 10 11 12 13 14 15 16

ring nodes :

1 2 3 4 5 6

chain bonds :

4-7 7-8 8-9 8-10 9-12 9-14 10-11 10-13 15-16

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6

exact/norm bonds :

4-7 7-8 9-14 10-13

exact bonds :

8-9 8-10 9-12 10-11 15-16

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6

Match level :

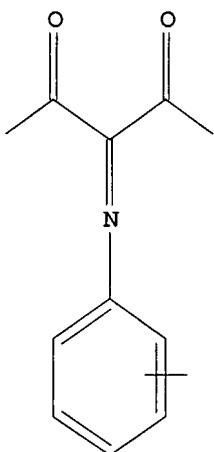
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS
11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS

L1 STRUCTURE UPLOADED

=> d L1

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

```
=> S L1 full
FULL SEARCH INITIATED 08:50:38 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 2106 TO ITERATE
```

```
100.0% PROCESSED 2106 ITERATIONS
SEARCH TIME: 00.00.01
```

7 ANSWERS

L2 7 SEA SSS FUL L1

```
=> file caplus
COST IN U.S. DOLLARS
FULL ESTIMATED COST
```

| | SINCE FILE ENTRY | TOTAL SESSION |
|--|------------------|---------------|
| | 166.94 | 167.15 |

```
FILE 'CAPLUS' ENTERED AT 08:50:45 ON 24 OCT 2006
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```

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FILE COVERS 1907 - 24 Oct 2006 VOL 145 ISS 18
FILE LAST UPDATED: 23 Oct 2006 (20061023/ED)

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<http://www.cas.org/infopolicy.html>

```
=> S L2 all
MISSING OPERATOR L2 ALL
The search profile that was entered contains terms or
nested terms that are not separated by a logical operator.
```

```
=> S L2
L3 5 L2
```

=> d L3 1-5 all

```
L3 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:750901 CAPLUS
DN 139:278100
ED Entered STN: 25 Sep 2003
TI Black pigment microparticle dispersions for ink-jet inks and their use in
ink-jet printing
IN Takahashi, Mari; Ofuku, Koji; Miura, Norio
PA Konica Co., Japan
SO Jpn. Kokai Tokkyo Koho, 78 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C09B067-20
ICS B41J002-01; B41M005-00; C09B067-46; C09D011-00
CC 42-12 (Coatings, Inks, and Related Products)
Section cross-reference(s): 41
```

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--------------------|------|----------|-----------------|----------|
| PI JP 2003268255 | A2 | 20030925 | JP 2002-76068 | 20020319 |
| PRAI JP 2002-76068 | | 20020319 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|-------|---|
| JP 2003268255 | ICM | C09B067-20 |
| | ICS | B41J002-01; B41M005-00; C09B067-46; C09D011-00 |
| | IPCI | C09B0067-20 [ICM, 7]; B41J0002-01 [ICS, 7]; B41M0005-00 [ICS, 7]; C09B0067-46 [ICS, 7]; C09B0067-00 [ICS, 7,C*]; C09D0011-00 [ICS, 7] |
| | IPCR | B41J0002-01 [I,C*]; B41J0002-01 [I,A]; B41M0005-00 [I,C*]; B41M0005-00 [I,A]; C09B0067-00 [I,C*]; C09B0067-20 [I,A]; C09B0067-46 [I,A]; C09D0011-00 [I,C*]; C09D0011-00 [I,A] |

OS MARPAT 139:278100

AB The dispersions giving prints with high black color d. and resistance to light, contain compds. Q=N-X (Q = color coupler residue; X = 5- or 6-membered aromatic rings or alicyclic rings) as colorants, polymer binders and hydrophobic organic solvents having b.p. of $\geq 150^\circ$ and are dispersed in an aqueous medium where the colorants and polymers form core/shell microparticles for improving lightfastness and storage stability.

ST jet printing ink lightfastness storage stability pigment black colorant

IT Polyvinyl acetals
RL: TEM (Technical or engineered material use); USES (Uses)
(acetooacetals, S-Lec KS 10; selection of black pigments for microparticle dispersions useful for ink-jet inks with good storage stability and lightfastness)

IT Polyamides, uses
Polycarbonates, uses
Polyureas
RL: TEM (Technical or engineered material use); USES (Uses)
(binder; selection of black pigments for microparticle dispersions useful for ink-jet inks with good storage stability and lightfastness)

IT Polyvinyl butyral
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(binders from S-Lec BL 10, BL-S, BX 1, KS 3, BX 10, BX-L, BL 1, Denka Butyral 2000L, 6000EP; selection of black pigments for microparticle dispersions useful for ink-jet inks with good storage stability and lightfastness)

IT Solvents
(high-boiling; selection of black pigments for microparticle dispersions useful for ink-jet inks with good storage stability and lightfastness)

IT Inks
(jet-printing; selection of black pigments for microparticle dispersions useful for ink-jet inks with good storage stability and lightfastness)

IT Polyurethanes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(polyoxyalkylene-, binder; selection of black pigments for microparticle dispersions useful for ink-jet inks with good storage stability and lightfastness)

IT Pigments, nonbiological
(selection of black pigments for microparticle dispersions useful for ink-jet inks with good storage stability and lightfastness)

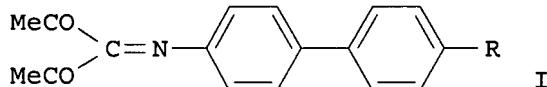
IT 9011-14-7, PMMA
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(binder; selection of black pigments for microparticle dispersions useful for ink-jet inks with good storage stability and lightfastness)

IT 24936-68-3, Iupilon S 3000, uses 25119-83-9, Acrylic acid-butyl acrylate copolymer 32131-17-2, Nylon 66, uses 53078-89-0, Hexamethylenediamine-MDI-TDI copolymer 59041-14-4, Methacrylic acid-methyl methacrylate-2,2,2-trifluoroethyl methacrylate copolymer 341536-55-8, Acrylic acid-butyl acrylate-1H,1H,2H,2H-perfluorodecyl acrylate copolymer 558484-70-1, 1,4-Butanediol-ethylene glycol-HMDI-polyethylene glycol-TDI copolymer
 RL: TEM (Technical or engineered material use); USES (Uses)
 (binder; selection of black pigments for microparticle dispersions useful for ink-jet inks with good storage stability and lightfastness)

IT 78-43-3 78-51-3, Tri(2-butoxyethyl) phosphate 84-61-7, Dicyclohexyl phthalate 84-74-2, Dibutyl phthalate 103-23-1 115-86-6, Triphenyl phosphate 115-96-8, Tri(2-chloroethyl) phosphate 122-62-3 1241-94-7, Diphenyl(2-ethylhexyl) phosphate 1330-78-5, Tritolyl phosphate 2528-39-4, Trihexyl phosphate 5444-75-7, 2-Ethylhexyl benzoate 28510-23-8 37832-65-8 56975-20-3 111671-75-1 129877-64-1 604783-41-7
 RL: NUU (Other use, unclassified); USES (Uses)
 (high-boiling solvents; selection of black pigments for microparticle dispersions useful for ink-jet inks with good storage stability and lightfastness)

IT 85-83-6, C.I. Solvent Red 24 1229-55-6 1320-06-5, C.I. Solvent Red 27 3785-90-8 4197-25-5 4314-14-1, C.I. Solvent Yellow 16 6406-53-7, C.I. Solvent Red 32 8003-22-3, C.I. Solvent Yellow 33 12225-32-0, Reactive Black 17 12237-24-0, C.I. Solvent Blue 70 19649-65-1 32881-02-0 38924-04-8 55290-62-5 69458-41-9, C.I. Solvent Black 43 71775-87-6, C.I. Solvent Blue 1 74566-13-5, C.I. Solvent Black 22 87606-56-2 128171-69-7 148345-88-4 161407-47-2 162208-01-7 169225-47-2 179157-18-7, C.I. Solvent Blue 40 189100-94-5 192075-25-5 192075-28-8 193684-91-2 193684-95-6 201026-53-1 205192-67-2 246232-93-9 255044-93-0 415726-33-9 501420-02-6 501420-03-7 501420-25-3 545387-52-8 545387-53-9 545387-54-0 604782-69-6 604782-70-9 604782-71-0 604782-72-1 604782-73-2 604782-74-3 604782-75-4 604782-76-5 604782-77-6 604782-78-7 604782-79-8 604782-80-1 604782-81-2 604782-82-3 604782-83-4 604782-84-5 604782-85-6 604782-87-8 604782-88-9 604782-89-0 604782-90-3 604782-91-4 604782-92-5 604782-93-6 604782-96-9 604782-97-0 604782-98-1 604782-99-2 604783-00-8 604783-01-9 604783-02-0 604783-03-1 604783-04-2 604783-05-3 604783-06-4 604783-07-5 604783-08-6 604783-09-7 604783-10-0 604783-11-1 604783-12-2 604783-13-3 604783-14-4 604783-16-6 604783-17-7 604783-19-9 604783-20-2 604783-21-3 604783-22-4 604783-23-5 604783-24-6 604783-26-8 604783-27-9 604783-28-0 604783-29-1 604783-30-4 604783-31-5 604783-32-6 604783-33-7 604783-34-8 604783-35-9 604783-36-0 604783-37-1 604783-38-2 604783-39-3 605644-48-2 605644-49-3 605644-50-6
 RL: TEM (Technical or engineered material use); USES (Uses)
 (pigments; selection of black pigments for microparticle dispersions useful for ink-jet inks with good storage stability and lightfastness)

L3 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1999:190157 CAPLUS
 DN 130:296456
 ED Entered STN: 24 Mar 1999
 TI Crystal structure of C19H22N2O3 and synthesis of two potential Schiff-base ligands
 AU Jian, Li; Wen-Xing, Zhang; Chang-Qin, Ma; De-Hua, Jiang; Tian-Lin, Yang
 CS College of Chemistry, Shandong University, Jinan, 250100, Peop. Rep. China
 SO Jiegou Huaxue (1999), 18(2), 89-93
 CODEN: JHUADF; ISSN: 0254-5861
 PB Jiegou Huaxue Bianji Weiyuanhui
 DT Journal
 LA English
 CC 25-4 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
 GI



AB Two new Schiff bases [I; R = NH₂, N:C(COMe)₂] were synthesized and characterized by elemental analyses, IR, UV and ¹H NMR spectra. The crystal and mol. structures of I (R = NH₂) were determined by x-ray diffraction.

ST biphenyldiamine diacetylmethylene prepн x ray

IT 6161-50-8, 3,3'-Dimethoxybiphenyl
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation with acetylacetone)

IT 123-54-6, Acetylacetone, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation with dianisidine)

IT 223418-51-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

IT 223418-50-6P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(preparation, x-ray anal., and reaction with acetylacetone)

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Casellato, U; Coord Chem Rev 1979, V25, P199
- (2) Casellato, U; Coord Chém Rev 1997, V23, P31
- (3) Ci, Y; Coordination Compounds in Analytical Chemistry (China) 1986, P230
- (4) Nakamoto, K; Infrared and Raman Spectra of Inorganic and Coordination Compounds. 3ed 1986, P256
- (5) Nelson, S; Pure Appl Chem 1980, V52, P2461 CAPLUS
- (6) Nishida, Y; Chem Lett 1983, V144, P1815
- (7) Sorrel, T; Tetrahedron 1989, V45, P3
- (8) Tang, L; Chem Res and Appl 1995, V7, P8 CAPLUS
- (9) Zacharias, P; Polyhedron 1985, V4, P1013 CAPLUS

L3 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1992:49016 CAPLUS

DN 116:49016

ED Entered STN: 08 Feb 1992

TI Dyes for sublimation-transfer printing and dye sheet

IN Karasawa, Akio; Koshida, Hitoshi; Aida, Isamu; Takuma, Hirosuke

PA Mitsui Toatsu Chemicals, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B41M005-38

ICS C09B055-00

CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

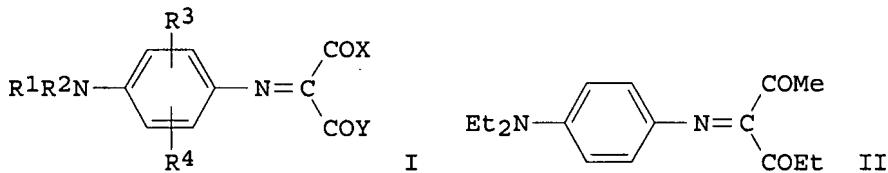
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|-------|----------|-----------------|----------|
| ----- | ----- | ----- | ----- | ----- |
| PI JP 03197090 | A2 | 19910828 | JP 1989-334837 | 19891226 |
| PRAI JP 1989-334837 | | | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|-------|------------------------------------|
|------------|-------|------------------------------------|

| | | |
|-------------|-------|--|
| ----- | ----- | ----- |
| JP 03197090 | ICM | B41M005-38 |
| | ICS | C09B055-00 |
| | IPCI | B41M0005-38 [ICM,5]; C09B0055-00 [ICS,5] |



AB The title dyes I [R1-2 = alkyl, alkenyl, aryl; R1-2 may be mutually bonded; R3-4 = H, halo, OH, cyano, alkyl, alkoxy; X = (cyclo)alkyl, aryl; Y = (cyclo)alkyl, aryl, OZ; Z = (cyclo)alkyl, alkenyl, aryl; X and Y may be mutually bonded]. I are yellow dyes and are suitable for sublimation-transfer printing of full-color images. Thus, a dispersion containing 3 parts of a dye II synthesized from N,N-diethylphenylenediamine and Et acetoacetate by oxidation and 4.5 parts butyral resin was applied on PET film to form a 1 g/m² layer. This film was used for sublimation-transfer printing with a receptor sheet coated with polyester, EVA and silicones and gave image with d. 2.7, which was highly colorfast and resistant to abrasion.

ST sublimation transfer printing yellow dye

IT Dyes

(sublimable, yellow, for sublimation-transfer printing)

IT Printing, nonimpact

(sublimation-transfer, yellow sublimable dyes for)

IT 93-05-0

RL: USES (Uses)

(oxidative condensation of, with Et acetoacetate)

IT 141-97-9, Ethyl acetoacetate

RL: USES (Uses)

(oxidative condensation of, with diethylphenylenediamine)

IT 69947-30-4 107266-41-1 124009-34-3 138311-22-5

138311-23-6 138311-24-7 138311-25-8 138311-26-9 138311-27-0

138311-28-1 138311-29-2 138311-30-5 138311-31-6 138311-32-7

138311-33-8 138323-56-5 138323-57-6

RL: USES (Uses)

(sublimable dye, yellow, for sublimation-transfer printing)

L3 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1990:6938 CAPLUS

DN 112:6938

ED Entered STN: 06 Jan 1990

TI Different substituent effects on the absorption maxima of azomethines and hydrazones

AU Mustroph, Heinz; Henning, Lothar; Wilde, Horst

CS Dir. Forsch. Entwickl., VEB Filmfabr. Wolfen, Wolfen, DDR-4440, Ger. Dem. Rep.

SO Zeitschrift fuer Chemie (1989), 29(2), 66-7

CODEN: ZECEAL; ISSN: 0044-2402

DT Journal

LA German

CC 22-9 (Physical Organic Chemistry)

OS CASREACT 112:6938

AB Peaks positions (λ_{max}) of 4-Et₂NC₆H₄(NH)nN:CRR₁ (I; n = 0) increased in the following order of R, R₁: COMe, COMe, COPh, COPh, COPh; CN, COPh; CN, CN. The same order of λ_{max} was found for I (n = 1) except that the peak for I (n = 1, R = R₁ = CN) appeared at the lowest wavelength. The results were discussed in terms of intramol. H bonding.

ST spectra aozmethine hydrazone substituent effect; hydrogen bond intramol hydrazone spectra

IT Ultraviolet and visible spectra

(of azomethines and hydrazones)
IT Substituent effect
(on electronic spectra of azomethines and hydrazones)
IT Hydrogen bond
(intramol., in hydrazones, electronic spectra in relation to)
IT 1333-74-0
RL: PRP (Properties)
(hydrogen bond, intramol., in hydrazones, electronic spectra in relation to)
IT 4722-47-8P 4754-98-7P 27845-13-2P 85415-01-6P 97497-45-5P
100796-50-7P 107266-41-1P 124009-34-3P 124009-35-4P
124009-36-5P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and electronic spectrum of)
IT 93-91-4, Benzoyl acetone 109-77-3, Malononitrile 120-46-7,
Dibenzoylmethane 123-54-6, Acetylacetone, reactions 614-16-4,
2-Cyanoacetophenone
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with (diethylamino)benzenediazonium tetrafluoroborate and
diethylnitrosoaniline)
IT 120-22-9, N,N-Diethyl-p-nitrosoaniline 347-46-6, 4-
(Diethylamino)benzenediazonium tetrafluoroborate
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with active methylene compds.)

L3 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1975:461604 CAPLUS
DN 83:61604
ED Entered STN: 12 May 1984
TI Determination of triplet-energy levels in azomethine dyes by
energy-transfer measurements
AU Herkstroeter, W. G.
CS Res. Lab., Eastman Kodak Co., Rochester, NY, USA
SO Journal of the American Chemical Society (1975), 97(11), 3090-6
CODEN: JACSAT; ISSN: 0002-7863
DT Journal
LA English
CC 40-4 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)
Section cross-reference(s): 22
AB Flash kinetic spectrophotometry was used to measure rate consts. for
energy transfer from a graded series of triplet sensitizers to azomethine
dyes; triplet-energy levels in the dyes were assigned near that point
where the efficiency of energy transfer began to decrease. Yellow
azomethines prepared by oxidative coupling of phenylenediamines with
tert-BuCOCH₂CONHPh, PhCOCH₂CONHPh, (PhCO)₂CH₂, (MeCO)₂CH₂, and
(tert-BuCO)₂CH₂ had triplet energies of 40-50 kcal/mole. Cyan and magenta
dyes, prepared by oxidative coupling of phenylenediamines with phenols or
2-pyrazolin-5-ones, quenched the lowest-energy triplet sensitizers at the
maximum rate and were assigned triplet energies of ≤21 and ≤23
kcal/mole, resp. The low triplet energy of the cyan and magenta dyes
indicates that electronic energy transfer contributes to the mechanism by
which these dyes quench singlet oxygen [7782-44-7].
ST azomethine dye triplet energy
IT Dyes
(azomethine, triplet-energy levels in, determination of)
IT Energy level transition
(electronic, in azomethine dyes)
IT Fluorescence quenching
(of singlet oxygen by azomethine dyes, mechanism of)
IT Energy level
(triplet, of azomethine dyes, determination of)
IT Energy transfer
(triplet-triplet, from hydrocarbon sensitizers to azomethine dyes)
IT 7782-44-7, properties
RL: PRP (Properties)

(quenching of singlet, by azomethine dyes, mechanism of)
IT 55901-13-8 55901-14-9 55901-15-0
RL: USES (Uses)
 (triplet energy and lifetime of)
IT 55901-04-7
RL: PRP (Properties)
 (triplet energy level in, determination of)
IT 1456-89-9 2363-97-5 4595-01-1 4704-33-0 4704-35-2 4719-41-9
 4719-49-7 4754-76-1 4754-82-9 4754-92-1 4754-96-5 4754-98-7
 4755-00-4 13617-66-8 13617-67-9 34980-06-8 50818-01-4 50818-02-5
 50818-06-9 55779-72-1 55779-74-3 55779-78-7 55901-05-8
 55901-06-9 55901-07-0 55901-08-1 55901-09-2 55901-10-5
 55901-11-6 55901-12-7
RL: PRP (Properties)
 (triplet-energy level in, determination of)

=>

---Logging off of STN---

\Rightarrow

Executing the logoff script...

=> LOG Y

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|--|------------------|---------------|
| FULL ESTIMATED COST | 15.81 | 182.96 |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
| CA SUBSCRIBER PRICE | -3.75 | -3.75 |

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NEWS 4 AUG 28 ADISCTI Reloaded and Enhanced
NEWS 5 AUG 30 CA(SM)/CAplus(SM) Austrian patent law changes
NEWS 6 SEP 11 CA/CAplus enhanced with more pre-1907 records
NEWS 7 SEP 21 CA/CAplus fields enhanced with simultaneous left and right truncation
NEWS 8 SEP 25 CA(SM)/CAplus(SM) display of CA Lexicon enhanced

NEWS 9 SEP 25 CAS REGISTRY(SM) no longer includes Concord 3D coordinates
NEWS 10 SEP 25 CAS REGISTRY(SM) updated with amino acid codes for pyrrolysine
NEWS 11 SEP 28 CEABA-VTB classification code fields reloaded with new
classification scheme
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NEWS 14 OCT 23 Option to turn off MARPAT highlighting enhancements available
NEWS 15 OCT 23 CAS Registry Number crossover limit increased to 300,000 in
multiple databases
NEWS 16 OCT 23 The Derwent World Patents Index suite of databases on STN
has been enhanced and reloaded

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MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 26 JUNE 2006.

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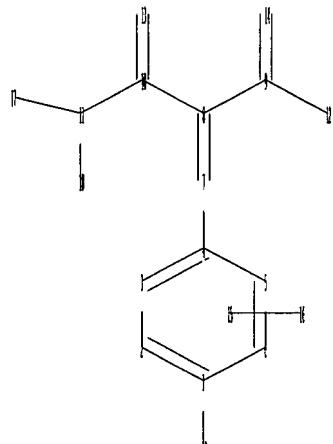
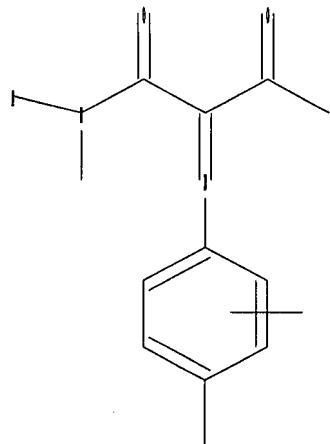
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chain nodes :

7 8 9 10 11 12 13 14 15 16 17 18 19

ring nodes :

1 2 3 4 5 6

chain bonds :

1-19 4-7 7-8 8-9 8-10 9-12 9-14 10-11 10-13 11-17 11-18 15-16

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6

exact/norm bonds :

4-7 7-8 9-14 10-11 10-13 11-18

exact bonds :

1-19 8-9 8-10 9-12 11-17 15-16

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6

Match level :

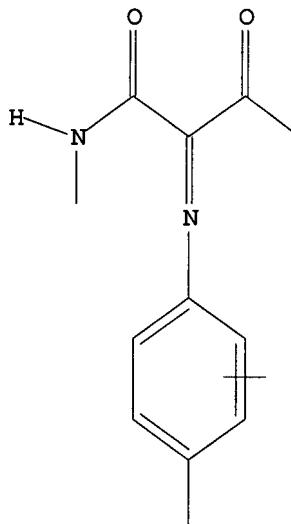
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS
11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS
19:CLASS

L1 STRUCTURE UPLOADED

=> D L1

L1 HAS NO ANSWERS

L1 STR



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=> s L1 full
FULL SEARCH INITIATED 08:53:40 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 375 TO ITERATE

100.0% PROCESSED 375 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

L2 0 SEA SSS FUL L1

=> file caplus
COST IN U.S. DOLLARS SINCE FILE TOTAL
FULL ESTIMATED COST ENTRY SESSION
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=> s L2

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ENTRY SESSION
0.90 1.11

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FILE COVERS 1907 - 2 Jun 2007 VOL 146 ISS 24
FILE LAST UPDATED: 1 Jun 2007 (20070601/ED)

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<http://www.cas.org/infopolicy.html>

=> s yellow low fluorescence dye
225923 YELLOW
1446 YELLOWS
226863 YELLOW
(YELLOW OR YELLOWS)
2558928 LOW
457 LOWS
2559237 LOW
(LOW OR LOWS)
347699 FLUORESCENCE
775 FLUORESCENCES
347818 FLUORESCENCE
(FLUORESCENCE OR FLUORESCENCES)
266039 DYE
219991 DYES
348534 DYE
(DYE OR DYES)
L1 1 YELLOW LOW FLUORESCENCE DYE
(YELLOW (W) LOW (W) FLUORESCENCE (W) DYE)

=> s polystyrene
152186 POLYSTYRENE
4424 POLYSTYRENES
L2 153045 POLYSTYRENE
(POLYSTYRENE OR POLYSTYRENES)

=> s L1 and L2
L3 1 L1 AND L2

=> d L3 bib abs

L3 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2005:429326 CAPLUS
DN 142:459703
TI Yellow low fluorescence dye for
coated optical bead random array DNA analysis
IN Chari, Krishnan; Qiao, Tiecheng A.; Diehl, Donald R.; Chen, Samuel
PA Eastman Kodak Company, USA

SO U.S. Pat. Appl. Publ., 15 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|------|----------|-----------------|----------|
| PI US 2005106712 | A1 | 20050519 | US 2003-713246 | 20031114 |
| PRAI US 2003-713246 | | 20031114 | | |

OS MARPAT 142:459703

AB A coating composition for making a protein microarray, the composition comprising a

gelling agent or a precursor to a gelling agent and microspheres; the microspheres containing a dye represented by Formula (I): wherein: R1 and R2 independently represent substituted or unsubstituted alkyl, aryl, carbocyclic ring, heterocyclic ring, or amino; and R3 represents H, alkylamino, dialkylamino, hydroxy, or alkoxy.

=> s dye

266039 DYE
219991 DYES
L4 348534 DYE
(DYE OR DYES)

=> s polystyrene

152186 POLYSTYRENE
4424 POLYSTYRENES
L5 153045 POLYSTYRENE
(POLYSTYRENE OR POLYSTYRENES)

=> s L4 and L5

L6 3884 L4 AND L5

=> s beads

L7 55222 BEADS

=> s low fluorescence

2558928 LOW
457 LOWS
2559237 LOW
(LOW OR LOWS)
347699 FLUORESCENCE
775 FLUORESCENCES
347818 FLUORESCENCE
(FLUORESCENCE OR FLUORESCENCES)
L8 578 LOW FLUORESCENCE
(LOW(W) FLUORESCENCE)

=> s L4 and L8

L9 82 L4 AND L8

=> s L6 and L9

L10 5 L6 AND L9

=> d L10 1-5 bib abs

L10 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2005:429326 CAPLUS

DN 142:459703

TI Yellow low fluorescence dye for coated optical bead random array DNA analysis
IN Chari, Krishnan; Qiao, Tiecheng A.; Diehl, Donald R.; Chen, Samuel
PA Eastman Kodak Company, USA
SO U.S. Pat. Appl. Publ., 15 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| PI US 2005106712 | A1 | 20050519 | US 2003-713246 | 20031114 |
| PRAI US 2003-713246 | | 20031114 | | |
| OS MARPAT 142:459703 | | | | |
| AB A coating composition for making a protein microarray, the composition comprising a gelling agent or a precursor to a gelling agent and microspheres; the microspheres containing a dye represented by Formula (I): wherein: | | | | |
| R1 and R2 independently represent substituted or unsubstituted alkyl, aryl, carbocyclic ring, heterocyclic ring, or amino; and R3 represents H, alkylamino, dialkylamino, hydroxy, or alkoxy. | | | | |

L10 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2005:429325 CAPLUS

DN 142:459639

TI Cyan low fluorescence dye for coated optical microsphere bead random array DNA analysis

IN Chari, Krishnan; Qiao, Tiecheng A.; Diehl, Donald R.; Chen, Samuel

PA Eastman Kodak Company, USA

SO U.S. Pat. Appl. Publ., 14 pp.

CODEN: USXXCO

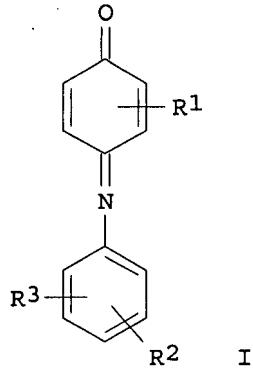
DT Patent

LA English

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----------------------|------|----------|-----------------|----------|
| PI US 2005106711 | A1 | 20050519 | US 2003-713165 | 20031114 |
| PRAI US 2003-713165 | | 20031114 | | |
| OS MARPAT 142:459639 | | | | |

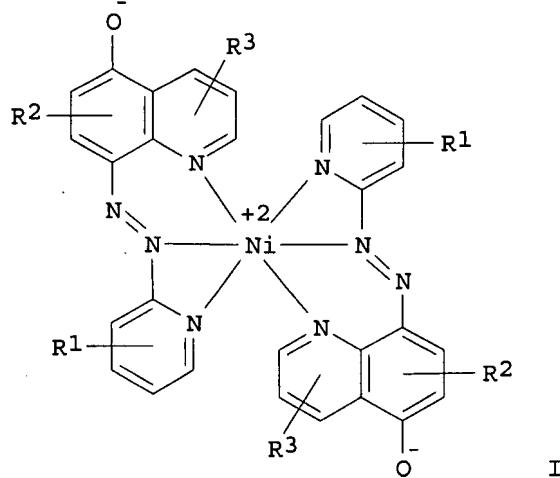
GI



AB The present invention provides a dye for coloring polystyrene microsphere beads cyan, i.e.--red light absorbing, with colorant materials that have the property of very low fluorescence intensity such that the resultant colored microspheres do not substantially fluoresce when excited by visible light. The present invention also provides a coating composition for making a protein microarray, the composition comprising a gelling agent or a precursor to a gelling agent and microspheres; the microspheres containing a dye [I; R1 = H, Cl, Br, I, (substituted)alkyl, alkylamino, arylamino, acyl, nitrile, alkoxy, aryl, heteroaryl, sulfone, sulfamoyl, sulfonamido, amido; R2, R3 = H, Cl, substituted amino, amido, alkoxy, (substituted)alkyl].

L10 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 2005:429290 CAPLUS
 DN 142:459637
 TI Magenta low fluorescence dye for coated
 optical microsphere bead random array DNA analysis
 IN Chari, Krishnan; Qiao, Tiecheng A.; Diehl, Donald R.; Chen, Samuel;
 Williams, Kevin W.; Stegman, David A.
 PA Eastman Kodak Company, USA
 SO U.S. Pat. Appl. Publ., 15 pp.
 CODEN: USXXCO
 DT Patent
 LA English
 FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----------------------|------|----------|-----------------|----------|
| PI US 2005106574 | A1 | 20050519 | US 2003-713522 | 20031114 |
| PRAI US 2003-713522 | | 20031114 | | |
| OS MARPAT 142:459637 | | | | |
| GI | | | | |



AB The present invention provides a dye for coloring microspheres magenta, i.e.-green light absorbing, with colorant materials that have the property of very low fluorescence intensity such that the resultant colored microspheres do not substantially fluoresce when excited by visible light. The invention provides a coating composition for making a protein microarray, the composition comprising a gelling agent or a precursor to a gelling agent, and microspheres; the microspheres containing a dye represented by the Formula (I): wherein: R₁ = one or more substituent selected from the group of H, chloro, alkoxy carbonyl, arylsulfamoyl, or alkylsulfamoyl; R₂ = one or more substituent selected from the group of H, carboxamido, or alkoxy carbonyl; R₃ = one or more substituent selected from the group of H, chloro, substituted or unsubstituted alkyl, aryl, carboxamido, or alkoxy carbonyl.

L10 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN
 AN 2001:738215 CAPLUS
 DN 136:233512
 TI Spectral properties of single BODIPY dyes in polystyrene
 microspheres and in solutions
 AU Wittmershaus, Bruce P.; Skibicki, Jamie J.; McLafferty, Jason B.; Zhang,
 Yu-Zhong; Swan, Sharon

CS School of Science, Pennsylvania State University, Erie, PA, 16563-0203,
USA
SO Journal of Fluorescence (2001), 11(2), 119-128
CODEN: JOFLEN; ISSN: 1053-0509
PB Kluwer Academic/Plenum Publishers
DT Journal
LA English
AB The absorption, fluorescence, fluorescence quantum yield, and photostability of five BODIPY dyes are characterized and compared as single dyes in two environments, in 40-nm polystyrene spheres and in solution. The absorption and fluorescence spectra of the dyes in spheres are similar in profile but shifted to lower energies compared to those in solution. All the dyes are highly fluorescent, with three having fluorescence quantum yields of 1.0. For three of the five dyes, the yields were the same in spheres as in solution (1.00, 1.00, and 0.73). The high concentration of these dyes in spheres does not quench their fluorescence. For two other dyes the yields dropped, from 1.00 to 0.55 in one case and 0.83 to 0.50 in another, comparing the dyes in solution vs. in spheres. The photodegrdn. of the dyes decreases in spheres compared to in solution in all but one case. For one dye, it decreases as much as 800-fold. Dyes overlooked because of low fluorescence or stability in solution could become useful fluorescent materials in the microsphere environment.

RE.CNT 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2000:478341 CAPLUS
DN 134:68152
TI Micromanipulation by laser microbeam and optical tweezers: From plant cells to single molecules
AU Greulich, K. O.; Pilarczyk, G.; Hoffmann, A.; Horste, G. Meyer Zu; Schafer, B.; Uhl, V.; Monajembashi, S.
CS Institute for Molecular Biotechnology, Jena, D-07708, Germany
SO Journal of Microscopy (Oxford) (2000), 198(3), 182-187
CODEN: JMICAR; ISSN: 0022-2720
PB Blackwell Science Ltd.
DT Journal; General Review
LA English
AB A review with many refs. Complete manipulation by laser light allows precise and gentle treatment of plant cells, subcellular structures, and even individual DNA mols. Recently, affordable lasers have become available for the construction of microbeams as well as for optical tweezers. This may generate new interest in these tools for plant biologists. Early expts., reviewed in this journal, showed that laser supported microinjection of material into plant cells or tissues circumvents mech. problems encountered in microinjection by fragile glass capillaries. Plant protoplasts could be fused with each other when under microscopical observation, and it was no major problem to generate a triple or quadruple fusion product. In the present paper we review expts. where membrane material was prepared from root hair tips and microgravity was simulated in algae. As many plant cells are transparent, it is possible to work inside living, intact cells. New expts. show that it is possible to release by optical micromanipulation, with high spatial resolution, intracellular calcium from caged compds. and to study calcium oscillations. An example for avian cardiac tissue is given, but the technique is also suitable for plant cell research. As a more tech. tool, optical tweezers can be used to spatially fix subcellular structures otherwise moving inside a cell and thus make them available for investigation with a confocal microscope even when the time for image formation is extended (for example at low fluorescence emission). A mol. biol. example is the handling of chromosomes and isolated individual DNA mols. by laser microtools. For example, chromosomes can be cut along complex trajectories, not only perpendicular

to their long axis. Single DNA mols. are cut by the laser microbeam and, after coupling such a mol. to a polystyrene microbead, are handled in complex geometries. Here, the individual DNA mols. are made visible with a conventional fluorescence microscope by fluorescent dyes such as SYBR-Green. The cutting of a single DNA mol. by mols. of the restriction endonuclease EcoRI can be observed directly, i.e. a type of single mol. restriction anal. is possible. Finally, mech. properties of individual DNA mols. can be observed directly.

RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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---Logging off of STN---

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Executing the logoff script...

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| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|--|------------------|---------------|
| FULL ESTIMATED COST | 41.31 | 42.42 |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
| CA SUBSCRIBER PRICE | -4.68 | -4.68 |

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